

CV

1. **Name and Surname: Betül Gürünlü**
2. **Date of Birth: 21.10.1987**
3. **Title: Dr.**
4. **Education Status:**

Degree	Field	University	Year
Bachelor	Chemical Engineering	Yildiz Technical University	2009
Master's Degree	Chemical Engineering	Istanbul Technical University	2012
PhD	Chemical Engineering	Gebze Technical University	2019
Post-doctorate	Sensor Technologies	Istanbul Technical University (ITUnano)	2021

5. **Academic Titles:**
Assistant Professorship Date: 20.09.2021
Date of Associate Professorship:
Professorship Date: -

6. Master's and Doctoral Theses Supervised

6.1. Master Theses

Narmin Suleymanova - Development of advanced control techniques for dissolved oxygen control in the reaction system, 2023.

Suat Asadov – Synthesis of silver nanoparticles from different parts of Sebin Walnut, and their antioxidant, antibacterial and photocatalytic activities, 2023.

Jamal Valizada – Synthesis of silver nanoparticles from Tarragon (*Artemisia Dranculus*) plant, determination of their antioxidant, antibacterial and photocatalytic activities, 2023.

6.2. Doctoral Theses

7. Publications

7.1. Articles published in international refereed journals (SCI & SSCI & Arts and Humanities)

Gürünlü, B., Taşdelen-Yücedağ, Ç., & Bayramoğlu, M. (2022). One Pot Synthesis of Graphene through Microwave Assisted Liquid Exfoliation of Graphite in Different Solvents. *Molecules*, 27(15), 5027.

Tavasli, A., **Gurunlu, B.**, Gunturkun, D., Isci, R., & Faraji, S. (2022). A Review on Solution-Processed Organic Phototransistors and Their Recent Developments. *Electronics*, 11(3), 316.

Gürünlü B., Taşdelen-Yücedağ Ç, Bayramoğlu M. Graphene Synthesis by Ultrasound Energy-Assisted Exfoliation of Graphite in Various Solvents. *Crystals*. 2020; 10(11):1037.

Gurunlu, B., Tasdelen-Yucedag, C., Bayramoglu, M. R., 2020: Green Synthesis of Graphene from Graphite in Molten Salt Medium, *Journal of Nanomaterials*, 2020, Article ID 7029601, 12 pages.

Gurunlu, B., and Bayramoglu, M., 2019: One Step Synthesis of Graphene-Like Structures by Carbonization of Some Carbohydrates in Molten Salt Media, *Journal of Nano Research*. 59, 166-179.

Baranak, M., **Gurunlu, B.**, Sarioglan, A., Atac, O. and Atakul, H., 2013: Low Acidity ZSM-5 Supported Iron Catalysts for Fischer-Tropsch Synthesis. *Catalysis Today. Special Issue for Catalysts 207*, 57-64.

7.2. Articles published in other international refereed journals

Gurunlu, B., and Bayramođlu, M. (2018). Green synthesis of graphene in molten salt media. *Journal of International Scientific Publications: Materials, Methods and Technologies(Online)*, 303-309.

7.3. Papers presented at international scientific meetings and published in proceedings

- **Gürünlü, B.** and Asadov, S. "Antioxidant and Antimicrobial Properties of Silver Nanoparticles Synthesized from Sebin Walnut Oil". UBAK 2022: 15th International Scientific Research Congress - Science and Engineering, 17-18 December 2022, Ankara, Türkiye. (Presenter: **Gürünlü, B.**)
- **Gürünlü, B.** and Asadov, S. "Green Synthesis of Silver Nanoparticles from Sebin Walnut Septum Extract and their Antioxidant and Antibacterial Activities". UBAK 2022: 15th International Scientific Research Congress - Science and Engineering, 17-18 December 2022, Ankara, Türkiye. (Presenter: **Gürünlü, B.**)
- Valizada, J ve **Gürünlü, B.** "Tarhun (*Artemisia dracunculus*) yapraklarından elde edilen gümüş nanoparçacıkların yeşil sentezi ve bunların antioksidan ve antimikrobiyal aktiviteleri". UBAK 2022: 15th International Scientific Research Congress - Science and Engineering, 17-18 December 2022, Ankara, Türkiye. (Presenter: Valizada, J.)
- **Gürünlü, B.** and Asadov, S. "Şebin Cevizi (*Juglans Regia*) Ağaç Yapraklarından Gümüş Nanopartiküller: Yeşil Sentezi ve Antioksidan, Antibakteriyel ve Fotokatalitik Aktiviteleri". UBAK 2022: 15th International Scientific Research Congress - Science and Engineering, 17-18 December 2022, Ankara, Türkiye. (Presenter: Asadov, S.)
- **Gurunlu, B.**, and Bayramoglu, M., 2019: Microwave Based Synthesis of Graphene from Graphite by Various Solvents, Graphene Week 2019, September 23 – 27, 2019, Helsinki, Finland. (Presenter: **Gurunlu, B.**)
- **Gurunlu, B.**, and Bayramoglu, M., 2019: Graphene Synthesis by Ultrasound Energy Assisted Exfoliation of Graphite in Various Solvents. Graphene2019: 9th edition of largest European Conference and Exhibition in Graphene and 2D Materials, June 25 - 28, 2019, Rome, Italy. (Poster Presenter: **Gurunlu, B.**)
- **Gurunlu, B.**, and Bayramoglu, M., 2018: Green Synthesis of Graphene in Molten Salt Media. 20th International Conference on Materials, Method and Technologies, June 26- 30, 2018, Elenite, Bulgaria. (Speaker: **Gurunlu, B.**)
- Baranak, M. **Gurunlu, B.**, Sarioglan A. and Atakul, H., 2012: Production of gasoline- range hydrocarbons over dealuminated zeolite supported iron catalysts in Fischer Tropsch synthesis. 15th International Congress on Catalysis, July 1-6, 2012, Munich, Germany. (Poster Presenter: **Gurunlu, B.**)
- Baranak, M., **Gurunlu, B.**, Sarioglan A. and Atakul, H., 2012: Effect of zeolite type on the performance of bifunctional iron based Fischer Tropsch Catalysts. 6th International Ege Energy Symposium & Exhibiton June 28-30, 2012, İzmir, Turkey. (Speaker: Baranak, M.)
- Baranak, M., **Gurunlu, B.**, Sarioglan, A. and Atakul, H., 2011: Fischer Tropsch Synthesis of Gasoline-Range Hydrocarbons over Fe/ZSM5 Catalysts. 61st Canadian Chemical Engineering Conference, October 23-26, 2011, Ontario, Canada. (Speaker: **Gurunlu, B.**)
- Baranak, M., **Gurunlu, B.**, and Atakul, H., 2011: Simulation of Direct Synthesis of Gasoline

via Alternative Fischer Tropsch Process - Zeolite Based Fischer Tropsch Catalyst. 61st Canadian Chemical Engineering Conference, October 23-26, 2011, Ontario, Canada. (Poster Presenter: **Gurunlu, B.**)

7.4. Authored international books or chapters in books

- **Gürünlü, B.** (2022). Medical Applications of Beta-Glucan. Bentham Science Publishers.
- **Gürünlü, B.** and Bayramoğlu, M.R. (2021) "Investigation on alternative techniques for the preparation of two-dimensional graphene nanosheets" in Krishnamoorthy, K. (ed.) *Novel Nanomaterials*. InTech Open ISBN: 978-1-83881-026-9
- **Gürünlü, B.** and Taşdelen-Yücedağ, Ç. (2020) Graphene/Polymer Nanocomposites. In Ruşen, A. & Yıldız, S. A. (Eds.) *International Studies on Natural and Engineering Sciences*, 1st ed, Gece Publishing, Ankara, Turkey. ISBN: 978-625-7319-12-6
- **Gürünlü, B.** Fisher Tropsch Katalizör Sentezinde Yeni Uygulamalar ve Yaklaşımlar, Lambert Academic Publishing, 2017.

7.5. Articles published in national refereed journals

7.6. Papers presented at national scientific meetings and published in proceedings book

7.7. Other publications

8. Projects

Low-power, non-invasive conformable optical-based sensors for home-assisted health and air quality monitoring (TUBITAK- Project No:118C365) – Postdoctoral Fellowship Researcher

Development of Ethylmorphine (Dionine) and Methylmorphine (Codeine) Production Processes from Morphine (TUBITAK- Project No:510G402) - Researcher

Liquid Fuel Production from Coal and Biomass Blends (TUBITAK- Project No:108G043)
Graduate Scholar Researcher

9. Administrative Duties

Vice Dean, Faculty of Engineering and Natural Sciences, (06/09/2023 – 07/11/2023)

Student Club Adviser / Head of Student Club, BIOMUHENGINEERING CLUB, (2023 - Ongoing.)

Student Counselling / Student Adviser, 51-60 Student Counselling, (2022 - Ongoing.)

Commission Member / Member of Commission, Quality Commission (Institute / Faculty / Vocational School), (2022 - Ongoing.)

Student Counselling / Student Adviser, 41-50 Student Counselling, (2021 - 2022)

Commission Member / Member of Commission, Internship Commission (Institute / Faculty / Vocational School), (2021 - Ongoing.)

Working Group Membership / Research Group Membership, Bioengineering Working Group, (2021 - Ongoing.)

10. Memberships to Scientific and Professional Organizations

TMMOB Chamber of Chemical Engineers

11. Awards

The Reviewer of The Year 2020 by IOP Publishing

12. Undergraduate and graduate level courses given in the last two years

Academic Year	Term	Course Name	Weekly Hours		Number of Students
			Theoretical	Practice	
2021/2022	Fall	Fundamentals of Chemistry	3	2	55
		General Chemistry	3	2	315
		Graduation Project	2	2	2
		Proje	0	6	2
	Spring	Biosensors	3	0	18
		Summer Practice I	0	0	55
		Summer Practice II	0	0	44
		Graduation Thesis	1	8	2
		Fundamentals of Bioengineering II	3	0	6
		Organic Chemistry	3	2	113
		Signals and Systems	2	2	46
	Mezuniyet Tezi	0	6	3	
	Summer	Biosensors	3	0	8
General Chemistry		3	2	8	
Organik Kimya		3	2	5	
2022/2023	Fall	General Chemistry	3	2	296
		Fundamentals of Bioengineering I	3	0	12
		Heat and Mass Transfer	3	0	59
		Biyomühendislik Temel Konular I	3	0	13
		Graduation Project	2	2	7
	Spring	Transport Phenomena	3	0	7
		Transport Phenomena in chemical Engineering	3	0	24
		Mass Transfer	3	0	52
		Seminar	0	0	9
		Graduation Thesis	1	8	7
		Biosensors	3	0	30
		Fundamentals of Bioengineering II	3	0	14
		Biyomühendislik Temel Konular II	3	0	26
	Summer	Summer Practice I	0	0	78
Summer Practice II		0	0	57	
Summer	Heat and Mass Transfer	3	0	5	
2023/2024	Fall	Heat and Mass Transfer	3	0	43
		Graduation Project	2	2	11
		Fundamentals of Bioengineering I	3	0	9
		Biyomühendislik Temel Konular I	3	0	3
		Chemical Process Control	3	0	28
		Mathematical Modeling for Chemical Engineering	3	0	27